

dew-claw is very important to the cheetah and he can also inflict a severe wound with it.

Sometimes it is solely by means of the dew-claws that the black-buck is secured in the chase.'—EDS.]

5. NOTES ON THE CLOUDED LEOPARD [*NEOFELIS NEBULOSA* (GRIFFITH)]

(With a plate)

Early in April 1950 a specimen of the Clouded Leopard which had been killed by a Forest Guard in North Borneo, was sent to the Raffles Museum for identification.¹ This animal has a wide range from Nepal and Sikkim eastward to southern China, Hainan and Formosa and south to Sumatra, the Malay peninsula and Borneo², but according to Pocock (1939: 251-3) little is known of its habits. He describes it as 'everywhere rare, or at all events seldom seen by European sportsmen, probably because it inhabits dense forests and is nocturnal'. The only field notes to which he was able to refer appear to have been those of Raffles from Sumatra (1821: 250), Tickell from Sikkim (1843: 816), Swinhoe from Formosa (1862: 353) and Brownlow from Tavoy (1928: 789).

According to Raffles the animal is largely arboreal and preys on birds. Tickell says that in Sikkim it feeds on goats and pigs, that it is savage and wary, and that when wounded it may turn fiercely on its assailants. According to Swinhoe it commits great havoc among deer in Formosa; but he adds that it never attacks man unless provoked. Brownlow provides the only positive contradiction to the last statement at present recorded, a leopard which killed several head of cattle and then stalked a native boy, who saved himself by splitting its skull with his knife. For completeness one may perhaps add the account by Gabb (quoted by the editors in this journal, 48 (4), 1949: 804) of a pair found feeding on porcupines in a cave in the Darjeeling district. The information supplied with the skin from North Borneo adds several items to these data; in addition earlier notes have been published on *nebulosa* in Borneo which are apparently not available in India. It seems, therefore, to be of value to summarise this additional material for the benefit of readers of this journal.

The North Borneo specimen was a female; the ground colour of the skin is a dull grayish fawn, with the flank pattern in the form of well-marked rosettes, each with its anterior rim about as thick as the posterior rim. It was encountered in a coastal swamp at Ulu Sungei

¹ The animal was killed on 19 March; it was sent to the Raffles Museum by Mr. G. S. Brown, Asst. Conservator of Forests, North Borneo.

² Pocock (*loc. cit.*) includes Java in the range of the Clouded Leopard; so do Carter, Hill & Tate, the authors of 'Mammals of the Pacific World' (1945:96). Chasen (1940:106) and Tate (1947:191) rightly refrain from doing so. The error is one of some antiquity; it starts with G. Cuvier (1823:437), who cites Java as the type locality of his *Felis diardi*, which is a race of *nebulosa*. To the best of my knowledge no feral specimen has ever been taken in Java. The Raffles Museum collection contains a fine beast said to have been killed at Changi, on Singapore Island, in 1898.

Kurapo, near Mumiang and about 18 miles east of Sandakan. It was accompanied by a second example, presumably the male, which is described as larger and coloured black and yellow, with the markings more or less circular on the back and incurved stripes on the flanks, 'like a circus tiger'.¹

The animal was killed by Awang bin Jim, the Forest Guard stationed at Mumiang. According to his account he had landed from the Sungei Kurapo to accompany two other men who were gathering *lamiding*² vine for tying fish traps. The forest growth was mainly *nipah* palms (*Nipa frutescens* Wurbm.) towards its landward limit, in fresh water and associated with mangrove-dry-land marginal tree species. The party heard cries, and on investigating came upon a pair of leopards attacking a large male Proboscis Monkey, *Nasalis larvatus* (Wurbm.). The leopards had isolated it in a low leaning tree about 9 feet off the ground and were leaping at it. They dragged it down and killed it. Awang says that as they approached more closely the female turned to attack them; so they ran to their boat. There Awang had a shot gun, and he killed her with buck-shot, shooting from the river. The time was about 3 p.m. They started to go ashore to get the carcass but the male made as if to attack them; so they went off some distance and collected dry *nipah* fronds which they used as a torch to scare it off.

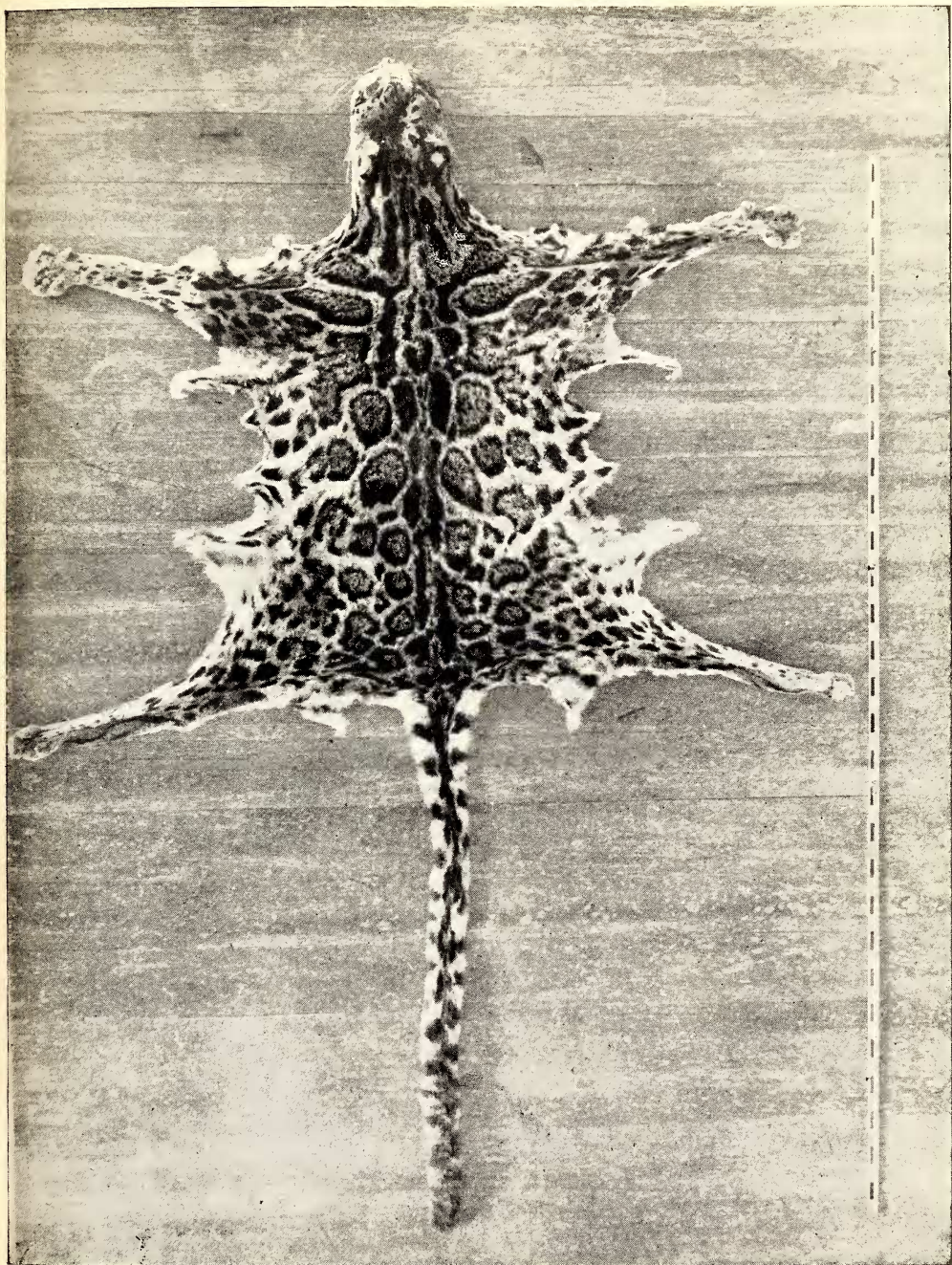
Awang unfortunately did not measure the dead leopard before skinning it, and he threw the skinned body, including the skull, into the sea. He says that the body was so heavy that it was difficult for two men to lift it. He brought in the dried skin. Even in its shrunken condition it measured 5 ft. 4½ inches from the nose to the end of the tail. The accompanying photograph shows the beauty of the patterning.

There are several interesting points about this record, the habitat, the colouring of the two animals, the addition of yet another item to its known menu, and the fact that it provides a second account of an apparently unprovoked attack on man. Without doubt there must be a wide range of temperament in this species—at least as wide as its reported diet. Banks (1931: 77), writing mostly of the Sarawak region of Borneo, says that there its behaviour is exemplary 'as it is not recorded as molesting children or dogs, much less man.' Elsewhere (1949: 50) he describes it as on the whole sluggish, indolent, retiring and good-tempered. Harrison (1949: 74) says it is always extremely shy; 'Nobody fears this huge cat, and there are derogatory stories about its prowess'

Banks (1931) also describes the Clouded Leopard as a shy and retiring species, seldom seen and of unknown habits. He adds that

¹ There are no feral tigers in North Borneo, but a very successful circus, which included a Bengal tiger in its menagerie, visited Sandakan and Jesselton while I was in Borneo in July 1949. It may be remarked that the Leopard, *Panthera pardus* (Linn.), also is not known from Borneo, and the Clouded Leopard is thus the largest of the Felidae recorded from the island.

² Lamiding vine, a climbing fern, *Stenochlaena palustris* Bedd., found widely in tropical Asia, Malaysia and Polynesia. 'Lamiding' is the name used in North Borneo by the Brunei, Malay and Suluk peoples there. In Malaya it is usually known as *akar paku* or *lembiding*. The stems are used for binding fish traps and sometimes for basket-making.



Skin of a female Clouded Leopard, *Neofelis nebulosa diardi* (G. Cuvier), shot in a coastal swamp area near Sandakan, North Borneo, on 19 March 1950.

